

1. (Twice Amended) A process for forming a silver coating on a surface of a first metal having a first electropositivity less than an electropositivity of silver, the process comprising a step of:

B1 (a) contacting the surface of the first metal with an aqueous composition comprising silver ions and a [multidentate] complexing agent that is a multidentate ligand, the aqueous composition having a pH of from 2 to 12, to form a coating of silver on the surface of the first metal, wherein the aqueous composition is free of ingredients selected from the group consisting of ammonium ions, thiosulphate ions and combinations thereof.

2. (Twice Amended) A process according to claim 1, wherein step (a) includes contacting the aqueous composition with a surface of the first metal having conductive metal pads, conductive metal through-holes or a combination thereof of a bare board, and in which the substrate includes non-metallic areas which remain uncoated in the process[, preferably solder-mask coated areas].

3. (Twice Amended) A process according to claim 1 or claim 2, wherein the surface of the first metal is a copper surface and step (a) includes contacting [a] the copper surface with the aqueous composition.

B2 8. (Twice Amended) A process according to claim 1, wherein step (a) includes contacting the surface of the first metal with an aqueous composition [in] which [the displacement coating composition is] further includes an ingredient selected from the group consisting of a surfactant, wetting agent, stabilizer, grain refiner, tarnish inhibitor and mixtures thereof.

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B3 14. (Twice Amended) A process according to claim 1, further comprising, prior to step (a), a step of contacting the surface of the first metal with an acidic cleaning solution to clean the surface of the first metal.

B4 18. (Twice Amended) A process for producing a bare printed circuit board comprising steps of:

i) providing a substrate having exposed metal conductor traces and pads through-holes or a combination thereof, the metal having an electropositivity less than an electropositivity of silver,

ii) applying a mask to cover at least the traces and to leave at least some of the pads, the through-holes or the combination thereof exposed, the mask being an insulator, and

iii) contacting the metal surface with an aqueous composition comprising silver ions and a [multidentate] complexing agent that is a multidentate ligand, the aqueous composition having a pH of from 2 to 12, to form a coating of silver on the metal surface, wherein the aqueous composition is free of ingredients selected from the group consisting of ammonium ions, thiosulphate ions and combinations thereof.

~~25~~ B5 26. (Amended) A process according to claim 12, wherein step (a) includes contacting the surface of the first metal with an aqueous composition at a temperature of from 15°C to 50°C.

[ 27. (Amended) A plated material, comprising:  
a layer of copper having a surface; and

B5 a layer of silver plated to the surface of the layer of copper, the layer of silver having a wet time of less than 5 seconds after being exposed for 18 hours to [40°C/93% RH] a temperature of 40°C and a relative humidity of 93% and 3 reflows.

28. (Amended) A plated material according to claim 27, wherein the layer of [metal plating] silver has a wet time of at most 0.95 seconds.

29. (Amended) A plated material according to claim 27, wherein the layer of [metal plating] silver has a wet time of at most 0.9 seconds.

B6 31. (Amended) A plated material comprising:

a layer of copper having a surface; and

a layer of silver plated to the surface of the layer of copper, the layer of silver having a wet force of greater than -0.2 after 2 seconds immersion and storage for 18 hours at [40°/93% RH] a temperature of 40°C and a relative humidity of 93%.

Please add the following new claims.

B7 34. (New) A process according to claim 1, wherein step (a) includes contacting the surface of the first metal with an aqueous composition that is free of ingredients selected from the group consisting of cyanide ions, formaldehyde, reducing sugars and combinations thereof.

35. (New) A process according to claim 1, wherein step (a) includes contacting the aqueous solution with a surface of the first metal having conductive metal pads, conductive